Mr G W Theobald (*University College Hospital, London*) said that the width of approach of the opening speakers had made it difficult to pinpoint any subject for discussion. Miss Barnes had quoted figures concerning induction of labour from the Perinatal Mortality Survey. A wide variety of methods including castor oil and hot baths were still used, but the disquieting feature was the apparent complacency often shown after doing amniotomy, women being left for several days without further treatment.

The Edinburgh School had started an intense phase of inducing labour with the idea of lowering the perinatal mortality and had expected, for no stated reason, a greatly increased operative rate, which they got. Dr Sturrock had concluded that the perinatal mortality rate had not thereby been reduced. He had limited himself to the perinatal mortality for the hospital and had not disclosed the figures for labours induced or those for the area served by the hospital. Since an increased number of non-booked patients had been admitted during the years under review his figures may have been better than he thought.

Professor Lennon had quoted excellent figures and a low operative rate, in marked contradistinction to those from Edinburgh. As 80% of all pregnant women near term went into labour within twenty-four hours of amniotomy, he was surely wise in waiting until the day after amniotomy before starting the oxytocin drip. It was a pity that he had spoken of the number of drops instead of the number of milliunits of oxytocin per minute. His figures were so similar to those from Bradford (Theobald 1963) that he had probably given similar amounts of oxytocin.

Labour could only occur when the myometrium became sensitive to the minute amounts of oxytocin released from the neurohypophysis (assuming it to be the hormone devised by nature for instituting labour) and this presupposed a change in myometrial sensitivity to it, otherwise induction would be unnecessary. If the amount of oxytocin in the drip were continually increased the danger point would arise when a sudden increase occurred in myometrial sensitivity to it. There was at present no evidence that large amounts of oxytocin were more effective than small in causing this essential change.

Induction of labour could be a very rewarding procedure, but no unnecessary risks could be tolerated. The time had come for controlled experiments to see whether the absolutely safe physiological drip was as effective as the potentially dangerous pharmacological one. There should be no need in this Section to stigmatize as retrograde any attempt to give so powerful a hormone by any other route than a vein.

REFERENCE
Theobald G W
(1963) In: British Obstetric Practice. Ed. A Claye. London; p 1055

Mr Alistair Gunn (*London*) commented on three matters: (1) Post-maturity had been referred to by all the speakers as though it were a primary obstetric condition. Nothing was likely to give worse results. Postmaturity was a symptom pointing to conditions which, if they were not recognized early and treated, were bound to have a high fœtal loss rate: the most important of these was uterine inertia. A critical examination should be made before the membranes were ruptured to assess the size and shape of the pelvis and to recognize signs of the inertia syndrome, so that in appropriate cases Cæsarean section could be done in good time.

(2) He condemned the routine use of antibiotics like penicillin and streptomycin in all women whose membranes had been ruptured for over twenty-four hours. Nothing could create greater danger than to destroy all the sensitive bacteria and leave resistant organisms quite unopposed. It must be remembered that bacteria had a struggle to exist amongst themselves and surviving resistant forms might include pathogens which would then have the field to themselves. Intra-amniotic infection was likely to occur if a faulty technique was employed to rupture the forewaters. The vagina had its own bacterial defence which would be impaired by introducing antiseptics and by causing bleeding from the cervix; he therefore inserted dry sterile gloved fingers into the vagina, used no antiseptic and took great care to avoid making the cervix bleed. 'Sweeping' the membranes was never done.

(3) Why did rupture of the forewaters make labour start and what method would make it start most quickly? He recalled that Eton (1959), with the methods he described, had reported the quickest induction-delivery intervals and the lowest incidence of maternal pyrexia yet published. The pregnant uterus had a rhythm of contraction and relaxation, the muscle fibres returning to their previous length when each contraction passed off; if a large amount of liquor was suddenly released the space in the uterus had to be taken up and so one or two contractions were followed by one or two large retractions; if, however, the liquor was released through a very small hole in the membranes without displacing

the presenting part (done by plucking a fœtal hair, which proved that the amniotic sac was open) and the liquor escaped in very small quantities but persistently and inexorably, the uterine fibres with each contraction had to retract a little. These persistent small retractions with each contraction set up a rhythm of retraction which was in fact labour. The slower the escape of the liquor, the sooner would labour be established.

REFERENCE
Eton B (1959) *J. Obstet. Gynæc., Brit. Emp.* **66**, 462

Mr Stanley C Simmons (*St Thomas's Hospital, London*) said that he wished to endorse Mr Gunn's anxiety over the excessive and casual use of antibiotics following induction of labour. At the International Symposium on Antibiotics, held at St Thomas's Hospital on September 29–30, 1964, it had been clear that, because of the danger of producing resistant strains of organisms, the mood of all other disciplines was away from the use of prophylactic antibiotics. Despite the warning of the bacteriologists, obstetrics seemed to be moving in the opposite direction. He thought that they had been stampeded into the use of antibiotics following induction of labour by the statistics of the Perinatal Mortality Survey. He asked Dr Sturrock if there was any clear evidence that the use of prophylactic antibiotics following induction of labour had improved these perinatal figures.

Dr Sturrock, in reply, said that the incidence of notifiable pyrexia in the mothers had doubled from 1955 to 1961. By the prophylactic use of antibiotics for the mothers when the membranes had been ruptured for forty-eight hours or more, the pyrexia rate had begun to fall in 1962 and 1963.

The giving of streptomycin to the baby when the mother's membranes had been ruptured for forty-eight hours or more had been begun in the Simpson Memorial Maternity Pavilion before the Perinatal Mortality Survey because of the occasional loss of a baby in these circumstances from *Esch. coli* septicæmia. Such tragedies seemed to have been eliminated to date by this prophylactic measure.

Mr Bruce Eton (*St Leonards-on-Sea*) said that many obstetricians who carried out surgical inductions set up the oxytocin drip after twenty-four hours if the patient was not in labour. If they felt that there was a risk of amniotic infection and if they believed in using the oxytocin drip, why wait twenty-four hours? Why not start the drip as soon as the membranes have been ruptured?

The condition of the cervix might weigh against surgical induction. The following types of cervix should not be regarded as contraindications: (1) The cervix which was soft, short and admitted at least one finger. (2) The cervix which was soft and long but admitted at least one finger throughout. (3) The cervix which was in sacral position, perhaps with a little sacculation, but was soft, short and admitted one finger. (4) The cervix, often found in primigravidæ, with a narrow rigid external os, which was otherwise short and soft, with a partially dilated internal os.

Mr D J MacRae (*London*) said that the treatment of pregnancy toxæmia had radically changed during the past twenty years, especially following the work of Dixon Hughes of Sydney in the 1940s and also of Hamlin (1952), so that the condition was either preventable or so mild that normal delivery at term could be expected. In 1958 he had reported a series of 960 cases of potential toxæmia – with a history of previous pregnancy toxæmia, abortion, hypertension or being overweight – looked after throughout pregnancy; the induction rate had been 15%, one-half by medical means and the other half by rupture of the membranes. The perinatal mortality had been 18·9 per 1,000. Intra-uterine fœtal death had occurred in 7 out of 11 stillbirths; in 6 of these death had occurred before the 38th week, so that routine rupture of the membranes at that time, as advocated by Professor Lennon, did not help this serious problem.

As regards postmaturity, calculation of the length of pregnancy from the last day, instead of the first, of the last menstrual period would resolve the problem in many cases. Stewart-Hess & Green (1962) had reported 77 cases in which pregnancy had proceeded beyond term by fourteen days or more; they had induced 6 cases, 4 medically and 2 by rupture of membranes. In their series there had been one Cæsarean section and one stillbirth, a case of congenital abnormality.

It was true, however, as the Perinatal Mortality Survey had shown, that mortality in postmaturity was high, but it was suggested that this complication occurred in nervous patients liable to hypertonic uterine inertia, or in patients with minor cephalopelvic disproportion for whom